

Scope of Claims

1. A charging apparatus for charging a secondary battery when mounting an apparatus having a built-in secondary battery
5 on a battery charger, the charging apparatus characterized by:
the battery charger comprising an engaging section and a contact member; and
the apparatus comprising an electrode for supplying power to the secondary battery upon establishing contact between an
10 engaged section engaging with the engaging section and the contact member; wherein
if the apparatus is mounted on the battery charger so as to engage the engaged section with the engaging section, the electrode is press-attached against the contact member with a
15 force greater than a weight of the device due to angular moment centered about the engaging section of the apparatus due to the weight of the apparatus.
2. The charging device according to claim 1, characterized
20 in that, if the engaging section engages with the engaged section when the apparatus is mounted on the battery charger, the electrode makes contact with the contact member at a position between a perpendicular line passing through a center of gravity of the apparatus and the engaging section.
- 25 3. The charging device according to claim 1, characterized in that a receptacle surface of the battery charger forms a substantial circular arc shape wherein the engaged section is engaged by the engaging section when the apparatus is turned
30 on the receptacle surface, and the electrode stops at a position where contact is made with the contact member.

4. The charging device according to claim 1, characterized in that the battery charger is provided with a wireless transmission means and the apparatus is provided with wireless receiving means, wherein the receiving means of the apparatus and an output means supplied with an output of the receiving means are driven by the secondary battery when the apparatus is removed from the battery charger for use.

10 5. The charging device according to claim 4, characterized in that a signal is transmitted between the transmission means and the receiving means by infrared ray.

15 6. The charging device according to claim 5, characterized in that an infrared generator is provided at the battery charger and an infrared receiver is provided at the apparatus.

20 7. The charging device according to claim 1, characterized in that the apparatus is wireless headphone.

8. The charging device according to claim 7, characterized in that an output unit case of the headphone has a substantially circular or oval shape so that the outer peripheries of the case rotate along the substantially circular arc-shaped receptacle surface of the battery charger so as to be stably supported at a position where the engaged portions are engaged by the engaging portions.

30 9. A charging device provided with an apparatus employing wireless communication, and a battery charger serving a dual

purpose of a mounting table for mounting the apparatus when the apparatus is not in use, the charging device characterized by:

the apparatus comprising a receiving means for receiving a signal in a wireless manner and the battery charger comprising
5 a transmitting means for transmitting signals to the apparatus in a wireless manner;

the apparatus comprising a electrode and an engaged section, and the battery charger comprising a contact member and engaging section; wherein

10 if the apparatus is mounted on the battery charger so that the engaged section engages with the engaging section, the electrode is pushed against the contact member due to angular moment taking a position of engagement of the engaged section and the engaging section as a fulcrum due to the weight of the
15 apparatus.

10. The charging device according to claim 9, characterized in that an electrode is provided at a lower portion of the apparatus, wherein if the apparatus is mounted on the battery
20 charger, the electrode is press-attached against a contact member provided on a receptacle surface of the battery charger.

11. A charging method for charging a secondary battery when mounting an apparatus having a built-in secondary battery on
25 a battery charger, characterized by:

providing an engaging section and a contact member on the battery charger side; and

providing an electrode for supplying power to the secondary battery by engaging the engaging section and the
30 contact member by the engaged section at the apparatus side; wherein

if the apparatus is mounted on the battery charger so as to engage the engaged section with the engaging section, the electrode is press-attached against the contact member with a force greater than a weight of the device due to angular moment
5 centered about the engaging section of the apparatus due to the weight of the apparatus, and

the secondary battery is charged by supplying power via the contact member and the electrode.

- 10 12. The charging method according to claim 11, characterized in that if the engaging section engages with the engaged section when the apparatus is mounted on the battery charger, the electrode makes contact with the contact member at a position between a perpendicular line passing through a center of gravity
15 of the apparatus and the engaging section.